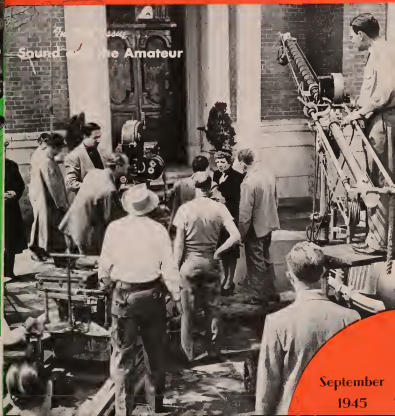


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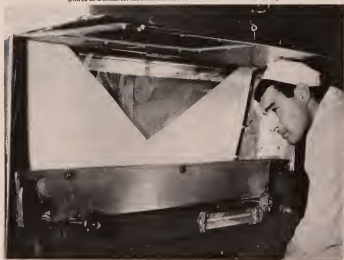
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September
1945



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THE AMERICAN CINEMATOPHIL

THE MOTION PICTURE CAMERA MAGAZINE

VOL. 28

SEPTEMBER, 1945

NO. 9

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THE FRONT COVER is an informal shot showing Director of Photography, Joseph Valentine, A.S.C., preparing to film a scene for "Tomorrow Is Forever," starring Claudette Colbert (in center), Owen Welles and George Brent. Irving Pichel is the director. The film is by International Pictures.

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HYPAN FILM

REVIEW OF THE FILM NEWS

BIGGEST news of the past month, actually, was the ending of the war with Japan—although the introduction of the atom bomb may in time to come prove to have been the biggest news, not only of the past month but perhaps of all time. Look for cycle of films shortly dealing with the atom.

Influence of Television

Indicates that motion picture executives are already beginning to think of the possibilities of television comes with the report that Director George Sidney in the selection of players for "Holiday in Mexico" is looking for players suitable for both regular film projection and television. It is pointed out that players with nervous habits and inclinations toward the exaggeration of facial expressions will have to be especially shunned. While films already demand greater expression than was ever typical of the stage, television will require this quality to an even greater degree.

Picture for Italy

It is reported that 20th Century-Fox will set up a distributing outlet in Italy for all major studios wishing to handle product through pooling arrangements. Deal is said to have covered the story of the Psychological Warfare Branch, and the arrangement is slated to go into effect this month. Five companies are reported thus far in the pool, but they will maintain their own respective selling staffs.

Wage Control Lifted

Of significant importance to everyone in the film industry was the announcement by the Treasury Department of the lifting of control over wages and salaries. Now salary increases can be given, and technical and other workers in motion pictures can negotiate the salary problem without having to submit them to the Wage Stabilization division for approval. Lifting salary controls will be a boon to the free-lance cinematographers.

16mm Films for Europe

Interesting to the news from Europe that America's major film companies are being forced to distribute 16mm films in order to service the thousands of small theatres equipped with 16mm projectors installed by the Nazis during their occupation. Decision to distribute

major films on 16mm stock was reached after a survey in France revealed that more than 5,000 theatres and screening places in that country alone were equipped only with 16mm projectors. A large number of these theatres are in rural districts, but in some regions all the theatres in entire cities have only the 16mm projectors. Many of these were put in by the Germans to replace worn-out or destroyed 35mm equipment. But in hundreds of places the Germans established 16mm theatres in order to get their propaganda before the people. Use of 16mm equipment in theatres in Europe was practically unheard of before the war. . . . It is possible that 16mm projection in European theatres might lead to changes over here in the future, especially since there undoubtedly will be a large increase in educational films here, made on 16mm.

Taxes

While wages and salaries will probably go up, there is no definite indication that taxes will go down in the near future, despite rumors and wishful-thinking stories that come out of Washington. This applies both to individual income taxes and theatre admission taxes. Those in the know at Washington say theatre admission taxes definitely won't drop before sometime in 1946. While some Congressmen, always thinking in terms of potential votes, talk about cutting income taxes, are proposing tax reductions, best guess is that there will be no tax reduction for at least another year. . . . somebody has to pay for the war.

Hollywood and Radar

Now it can be told that Hollywood technicians played a vital part in the success of radar in the war. It is now revealed that the 18th AAF Base, Motion Picture Unit, at Culver City, California, made films on radar that won a noticeable value, especially in the bombing of Japan. A minutely detailed scale model of Tokyo and its environs was built by technical experts directed by Major Roy Szwarcwald, Warrent Office. John Glass and T/8rt Joe Wattenbarger. This was used in filming a briefing sheet that was used to make all pilots familiar with Tokyo before going over to drop their bombs. Seventy-five per cent of the men at the Culver City

base are from the Hollywood film studios. . . . Then still was of untold value to bombing pilots.

Films and Racing

Motion pictures will now be used to promote clean horse racing. Hollywood Park officials are going to film all races this fall on 16mm from start to finish of each race. Equipment has been installed by means of which the film is developed and ready for projection six minutes after the finish of each race. Cameras will have special magnifying lenses, making it possible to observe indirectly the movement of every horse and every jockey. Thus, by viewing the film, judges and stewards will be able to make quick and just decisions in cases of irregularity or contest. It is felt that jockeys will not try any tricks when they know the camera is trained on them.

Television Sets

It is reliably reported from Washington that the present applications for 224 television stations now on file will be acted upon within the next sixty days, and that by Christmas transmission of television programs from new transmitting towers in Washington will be under way. Representatives of companies prepared for television transmission predict television sets will be widely distributed within a year.

Here and There

Watch for decline of gangster films, and other types which might give people of foreign lands wrong impression of American way of life. . . . Warner Brothers Studios reported contemplating making film on the life of Winston Churchill. . . . if Churchill continues his criticism of the United States for adopting lend lease it might not prove to be a happy venture. . . . End of war was hardly announced when big manufacturers started drive for exploitation tie-ups with film companies. Auto makers especially want to get their new cars on the screen in every picture possible. Film shortage headaches are ended with lifting of government restrictions. Raulo Adams of the WFE is announcing the lifting, and "Motion picture people have been very cooperative thus far. Generally speaking, I have feared they have been most willing to do their part in air program."—H.H.

The Production of Scientific Films for Biological and Medical Purposes

[On Film Stock]

By J. YULE BOQUE, Ph.D., M.R.C.V.S.

THE production of scientific films for medical and biological purposes presents problems peculiar to this field which necessitate modifications of standard film technique. We are in fact, recording living phenomena on film, and it is essential therefore that the actor-producer and director should appreciate the significance of the procedures carried out in demonstrating the mechanisms of living processes. He must be fully aware of the fact that living things are in a continual state of change, and that the changing is due to the adaptation of the living system to changes in its environment. If the system is to live normally, then changes great or small in the external environment must result in a series of reactions designed to keep the internal environment of the tissue constant within the very narrow range within which life is possible. It is desirable, therefore, that the director be medically or biologically qualified.

The techniques used in the demonstration of living processes must of necessity involve the introduction of new variables and some degree of abnormality, for example, anaesthesia. We attempt, therefore to control these variables as much as possible. When, in addition, the demonstration is to be recorded on film, special attention must be given to the additional variables introduced, such as the heat generated by the lighting equipment.

For the purpose of this discussion, the films will be classified into two main groups that which includes those which do not make a new contribution to knowledge, but present in a suitable form knowledge which is in our disposal and which we wish to disseminate; and that group in which the film makes a new contribution to our knowledge of living processes or scientific technique. These two groups may be divided into two classes, that comprising a planned series of demonstrations, each of which logically follows its predecessor, and that class made up of single films which do not form part of a series.

Considering first the group in which the film does not make any new contribution to our knowledge, but is used to "put over" scientific knowledge in a scientific manner. Anything which is scientific implies an orderly presentation of the facts in an objective manner. Unfortunately, many medical and

biological films are neither orderly nor objective, and yet are labelled scientific. This state of affairs is usually due to a lack of knowledge of cinematographic technique and to a lack of planning and appreciation of the possibilities of the film. It might be noted that poor films have been produced on subjects which should never have been filmed. I have seen one which was nothing more than a lantern slide six hundred feet long, over half of which was made up of running titles, while the remainder consisted of shots of stills.

There are two ways in which the problem is usually approached. The producer, who is often a research worker in a laboratory, may enlist the aid of a colleague who is an amateur cinematographer or call in his photographic department to deal with the camera and lighting. (Unfortunately the average photographic department has little knowledge of cinematographic technique.) Alternatively, he will employ a professional film unit, this is rarely done. In my opinion the time has now come when it is essential to utilize the services of a professional film unit whenever possible. It is regrettable that there are so such units at present which are experienced in this particular field, though there are a number of skilled individuals who, working on their own, have produced some excellent work. Even here, perhaps, the completed film could have been better for a variety of reasons. There are, however, quite a number of long term experimental procedures which do not lend themselves to the help of a professional film unit, if only on the grounds of expense. In these cases, professional script assembly, titling, and other services can be of great value.

These remarks, therefore, are addressed to two groups of people; those who are professional film makers with little biological knowledge, and those who are medically or biologically trained and who are not really familiar with the full scope and possibilities of the film.

It is essential that all the preliminary work—writing of the script, camera position and angles, lighting and exposure tests in difficult subjects, experimental procedures and so on—should be fully completed before a single foot of the actual film is exposed.

The procedure, therefore, is to write the script, put on to paper what is to be demonstrated and decide definitely on the effect desired. The film may be a complete demonstration in itself, or it may be one of a series, if the latter,

then at least two, preferably three, of the scripts should be worked out. Otherwise it is difficult to establish good continuity in the series. Each film should, however, be complete in itself and, at the same time, be in such a form that the succeeding films logically follow on. When the series has been seen by the student, he should carry away with him a vivid memory picture and a good general knowledge of the field covered.

The subject should first be considered from the viewpoint of its suitability for film treatment. The purpose of any film is to demonstrate motion or change. If there is no motion or change, then, in other than very exceptional circumstances, it is better to use lantern slides or charts, since they are much more effective, cheaper and less trouble. Some branches of anatomy can be taught very effectively with suitable film treatment, even though the structures may be static. There are cases in which the use of the film together with lantern slides is much more effective than either alone. This will be mentioned again later.

Having arrived at a favorable decision on the use of the film, the method of presentation must be decided. Here, of course, a knowledge of film technique is indispensable. It cannot be emphasized too strongly that if the film is to be an impeccable source of knowledge, then the subject must be faithfully represented and, further, it should be done in as straightforward a manner as possible. It should not be over-simplified, but all essential fields of view, e.g., apparatus, especially oscillating or rotating components, should be ruthlessly eliminated from the screen, as they only serve to distract the attention of the audience from the very point you are wishing to demonstrate. Trick or technical effects might also be mentioned here, though they will be dealt with more fully later. A dissolve, wipe or split screen, for example, should only be used when it helps to clarify or connect a particular point; it should never be used for the sake of the effect, since the audience is more likely to be impressed by the effect and lose the thread of the demonstration.

Before proceeding to the actual writing of the shooting script, there is a controversial problem on which a decision must be made as it influences the type of script. The problem is—sound or sound in its own mind, there is no doubt. In all cases where the teacher's opinion has to be considered—SILENT! If, however, the film demonstrates the discovery of a particular scientific fact, or is used to demonstrate an applied technique by an acknowledged expert in the field, e.g., anaesthesia or plastic surgery, then most certainly SOUND. If possible the commentary should be written, or, even better, both written and spoken, by that authority.

In film dealing with the mechanisms of living processes, there is much difference of opinion on the interpretation of detail. Therefore these films should

(Continued on Page 312)

Note: The article by Dr. Boque is printed through the courtesy of the Photographic Journal, official organ of the Royal Photographic Society of Great Britain.—The Editor



Shooting Production Under Fire

By SGT. HERB A. LIGHTMAN

U. S. Army Signal Corps

AS a motion picture cameraman in Europe with the 107th Signal Photo Co it was my job to get on-the-spot combat newsreel coverage, both for release in the States and for tactical analysis by Army intelligence officers.

But in addition to this routine, the particular four-man photographic unit of which I was a member received a number of assignments to shoot documentary feature productions at the front. The purpose of these films was to provide recreation features for our troops, as well as informational films for release on the civilian screen in America.

Our commanding officer, Capt Merle H. Chamberlin, who in civil life is chief

of projection at M-G-M studios, had consistently held to the theory that even in actual combat it was possible to mere sharply portray the various facets of war if careful pre-planning were utilized along with so many studio production techniques as were practicable under the circumstances.

Herbert, a cameraman on assignment shot more at less haphazardly, using a stereotyped formula and hoping that when he had finished there would be enough continuity to enable a coherent story to be cut from his footage. According to our plan, everything was to be worked out on paper before a foot of film was run through the camera, and this diagrammed script would be followed as closely as the changing situation would permit.

Our first chance to use this technique came when Lt Col Eric T. Tobow, photographic officer of the 12th Army Group, called our unit into his office one morning and told us that a request had come through from SHAEF for a documentary film to show in front detail the workings of an Army Civil Affairs team in helping to bring a newly liberated city back to normal life.

The assignment was a challenge. It was easy enough to produce such a film on the sound stages of the Signal Corps Photographic Center at Aspers or at an Army-owned studio in Hollywood. There set-ups were geared for such filming, but we prepared to turn out a film of production quality in the actual locale where the action was taking place, directly under fire (since we would have to move in with the infantry just as the city was falling), and using equipment

that was designed for only the simplest type of newsreel photography.

We set to work on our shooting plan. We had been given free-rein on the treatment as long as we brought out certain definite points that the Army wanted stressed. In addition, of course, every detail had to be technically correct—and that meant research.

Our first step was to interview all of the high ranking officers of Army G-2, the agency which controlled Civil Affairs and Military Government. We asked questions, took notes, and absorbed all kinds of technical data. This done, we felt confident and "at home" in our subject.

The next step was to decide upon a "shoot" for the film, some definite story line that would be our film narrative singly together and at the same time give it audience interest. To show an overall picture of the Civil Affairs program would have been undramatic and uninteresting, so we decided to select one typical Civil Affairs team which was about to move into a typical French city, and to show every phase of its activity from preliminary planning to the final phase in which the city is shown once more free and alive and pursuing a normal course of affairs.

General Patton's Third Army was at that moment maneuvering into position before the fortress city of Metz, drawing up in battle formation for the attack which was to liberate the city. We decided that Metz was perfect for our purpose.

Within the unit we planned to "specialize" our jobs rather than to duplicate our efforts. S/ Sgt. Gene E. Coogan, former stand-in at M-G-M, who later became 1st Sgt. of our company, was operating cameraman. Gene was known as the most dare-devil cameraman in the ETO. He would go anywhere and do anything for a picture, whether it meant leaping by his ankles from the side of a cliff or dodging enemy bullets for a shot that would add that authentic combat touch where needed.



All photographs are official Signal Corps photos made in European war zone. Top right shows personnel being brought in at night. Bottom left is a production building after war.



My job in the unit was to do the writing, direction, and the planning of interior lighting set-ups. In addition we had two still cameramen, T/S Walter MacDonald and T/S Stanley Stern, who were to shoot set and production stills, as well as action stills for release to the photographic pool.

I started to work on the shooting script. It was written in the finest detail to be sure that we would record correctly all phases of the subject that had to be shown. Yet enough leeway was allowed to provide for the filming of unforeseen situations which we knew would arise. Action was the keynote of this script. We wanted to show rather than tell our story. We wanted it to have the human touch and to show the "behind-the-scenes" phase of battle which we knew our audiences back home were eager to know about.

In order to give a general scope to the film and to imply that this particular Civil Affairs team was just one of hundreds that had gone into liberated cities with our advancing armies, we started the script off by writing in a montage that began with the D-Day invasion, showed the battle across France, the human misery and suffering in the wake of war, and the efforts of Civil Affairs to restore order. The script then narrowed down to our one specific team and brought out every detail of its work in Metz.

The script was submitted to 12th Army Group and was approved without revision. We began to pack our equipment. A Mitchell silent camera and a Wall single-system sound camera were available in the company. But since we had planned on dubbed sound effects and off-screen narration, and since we knew we would be shooting under very precarious conditions, portability of equipment was very important. So, instead of the heavy cameras, we took with us a standard speed-turret, motor-driven Eyemo with 400 ft magazine. Our lenses varied from a 3-inch wide-angle to a 12-inch telephoto.

For off-the-cuff shooting which we knew would be the only way to catch

action sequences we took along a single-lens, 196 ft Eyemo of the "bomb-spotting" variety. We had extra batteries, magazines, and a supply of DuPont Type 2 film.

Sixty per cent of the scenes called for in the script were interiors, which meant that we would need lights. The lights used by the Army were of the large "dish-pan" type which took a No. 4 photoflood and were useful for general illumination. Each of these had adjustable barn-doors to allow some measure of control. In addition we rigged up some spots using sheet-metal and tin cans for condensors and using Eastman reflector-spot lamps. We ended up with four of the photofloods and two spots.

Electrical current was a problem. We couldn't depend upon local current because many of the power stations had been bombed out of action. So we took along our own current in the form of two small 25 kilowatt generators which we mounted on a trailer and hitched onto our jeep. We added a "gaffer" to our crew to act as general utility man and to work the generators.

When equipment and personnel were all present and accounted for we set off to join our Civil Affairs team in the town of Thionville, France—which at that moment was very much the combat zone. The Moselle River cuts this industrial town into two halves and we arrived to find one half rather unfortunately held by American forces, while German troops were heavily entrenched in the other half. Both sides were shelling each other furiously.

In a building a scant 200 yds from the river and very near a park which for obvious reasons the doughboys had dubbed "Purple Heart Square," our Civil Affairs team was busily manning to the needs of the liberated half of the town, as well as preparing for their entrance into Metz when that city should fall.

We introduced ourselves to our "host" and started shooting immediately. For "sets" we used the actual offices being used by the team. Lights were set up, props arranged, the camera was placed in position, and we were ready for action.

Here, just a word about our lighting. As I have pointed out before, our main objective was to make every foot of film, even though partly re-taken, as realistic as possible on the screen. This applied to lighting as well as to camera movement and action. Each scene had its own diagram of light placement, camera angle, and approximate composition in the frame.

In designing the lighting we were very careful to avoid anything that was "arty" or of the Hollywood glamour variety. We strove for a sharp, documentary effect, which meant that we duplicated scene's lighting as nearly as possible. If a character was sitting at a desk so that his face was strongly illu-

(Continued on Page 306)



The left entry pose is their camera daily. Other two photos show view of work.



Left: a scene from "The Sweet Tooth Saltery," directed and photographed by Edwin S. Porter for the Edison Company in 1902

Cradle of American Cinema

By IRVING BROWNING

DO YOU remember the days of the "Nickelodeon" when a nickel admitted an adult or two children to a moving picture show? When half of the admittance ticket permitted you to stay for an extra show? When the projection machine broke down or there was a change of reels and a slide appeared reading, "Use Mirrie, Please"? When advertising slides were shown? When the show was interrupted with a slide reading, "Makin' Your Baby a Crying Outside," and many of the

women edged their way by you, running up the aisle, going to the street to find out if it was their baby? Do you remember when the lights went on between shows and an attendant walked up and down the aisle spraying perfume discreetly over your head which you didn't mind, because you liked the odor? Do you remember such slides as "De Not Spot on the Floor—Remember the Johnstown Flood," or "Ladies, Please Remove Your Hats," or when the film appeared upside down and when the

audience stamped their feet and whistled to let the operator know that something had gone wrong, he would show a slide that read, "Please Don't Whistle or Stamp on the Floor"?

Those were the days when I saw my first moving picture in a nickelodeon. I was one of the two kids who went in to see the show for a nickel, about the year 1905. Then and there I caught the owner of the store nickelodeon and began asking a lot of questions: "What makes the movies move?" "How were they made?" "Who makes them?" "Are they real people?" In fact, I asked many questions the owner could not answer. The only information he could offer was that he booked his films in Union Square; that real people were in them, and if I went to Union Square I could find out more about them. At that time I lived in Harlem, New York City, and a trip to Union Square was quite an adventure. But I had to know about the movies, so I made the trip which was my introduction to motion pictures. I learned that a good deal of the film was made in studios close by, in the Union Square area. The Majestic and Reliance Film Companies were in Union Square. The Biograph was at 14th Street, near Fifth Avenue, and much of the film was made in other parts of the city, in open air stages and in New Jersey.

In a remote street in the Bronx, Thomas Edison built a large studio especially for the production of moving pictures to be shown on the screens in this country and in Europe. This Edison Studio is situated at 2825 Devoeur Avenue, Bronx, New York, and is now known as The Filmmark Studio. There is a brass plaque hanging between the reception room and hall on the main floor with the inscription, "In Memory of a Great American, Thomas A. Edison, Who in This Site, in the Year 1894 Erected New York's First Motion Picture Studio." The present Filmmark Studio has a new concrete floor added to the original building. The glass top has been removed, which was so necessary in most of the studios of the early years. Close observation of the illustrations of the original Edison Studio and the present Filmmark Studio will reveal that change.

The Edison Studio cost \$100,000 to build. It had a large glass top and the building measured 100 feet in length, sixty feet in width, and forty-five feet in height. It had an area of twenty-four hundred square feet, and there was a water tank built into the concrete floor stage with a capacity of 150,000 gallons of water for filming aquatic scenes. Prior to this studio, Edison manufactured



Left: an interior of the stage in the Edison Studio in the Bronx. Note the Actors and lights hanging in the rear and the two men working at their footlights.

Right, the famous Black Maria—the first motion picture studio in the United States, built at West Orange, N. J. in 1892

films for the Kinetoscope Peep Show machines, which were produced at West Orange, New Jersey, in the experimental studio, made of wood and tar paper, known as "The Black Maria." It was built in 1893 at a cost of \$637.67. The "Black Maria" was abandoned because the Peep Show was unsuccessful financially. It was necessary to show the moving pictures to a greater number of people for financial profit. By 1894, the first projected film was shown by Edison in New York, after which, regular production started.

In the original Edison studio photograph is a box which was known as "The Merry Widow." It had a round seat in the back which as location, was tilted in and used for a dressing room. The lights used in the studio were Argand arc lamps. Floor space was sectioned off in two stages known as Stage 1 and Stage 2. Ed Porter was then studio manager, and Jack Thoms, now with The First Film Company, was head cameraman, though he did not actually handle a camera. It is said that the interiors of the most exciting film of 1904, known as "The Great Train Robbery," were made at the Bronx Edison Studio. There have been many conflicting stories, but the writer believes these to be authentic facts.

In those days it was difficult to entice legitimate stage performers into the film studios, but there was one thing that did bring them into the field. That was the salary of \$50.00 per week and three square meals a day, compared to the "light" theatre salaries of \$10.00 per week and two meals a day. Among the first actors known to have performed in the Edison Studio was Marc McDermott, and the first director was J. Searle Dawley.

Edison published a bi-monthly booklet known as "The Edison Kinetographs," and on the fly leaf, alongside his photo, were the words, "Thomas A. Edison, to whom the world owes the Moving Picture Men." In the Kinetographs of August 1, 1906, announcement was made as follows: Miss Carl Spooner has been employed to enact the difficult dual role of Tom Carky, the gaucher boy and Edward, the boy Prince of Wales, in the film production of Mark Twain's celebrated story, "The Prince and the Pauper." Maude Adams has declared an offer of \$50,000 to give a performance of her *Jewel of Arc* for a moving picture film, to be exhibited all over the country. She does it because she thinks more of her art than of money making. Artistically, she may be right, so far as her own feelings are concerned and particularly so far as elevating and instructive influences are concerned, she is wrong.



August 26, 1900, Edison released a 400-foot subject called "The Wright Brothers Aeroplane"—A Film of Achievement.

Released September 14, 1900—"Little Sister," length 975 feet, listed as dramatic, written especially for the Edison Company by Edward W. Townsend and listing a cast of characters as: Little Sister, Miss Ethel Browning; Daddy, her brother, Mr. Herbert Van; Mr. St. Clair, Mr. Telford Johnson; Mrs. Manning, Mrs. Josephine Fox; Mrs. McGinn, Miss Maggie Weston.

In the October 1, 1900, issue of Kinetograph, the editor took the pleasure of introducing the first of the gallery of

players to the readers of Kinetograph William J. Sadiella, an actor of fifteen years training and standing high in his profession, having been connected in the dramatic profession with Faversham, Savage, Jefferson, E. H. Sothern and Robert Mansfield.

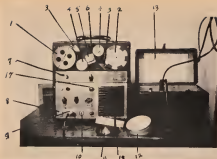
October 15, Kinetograph introduced Herbert Bestwick, hailed from the critical eye of the wizard of the stage, David Belasco.

November 1, Mile Pilar Morris was introduced and she in her interview tells of the value of the silent drama or Pantomime in Acting.

(Continued on Page 118)



Right, the original Edison Studio at 1212 Avenue B, New York, built in 1898. See the production of historical movies. (All photos courtesy of Museum of Modern Art Film Library)



Cine-Chronized Sound On Wire For Amateurs

By LISLE CONWAY, S. M. M. A.

WITH the ordering of the war will come an almost entirely new device for the amateur movie maker and the professional cinematographer to experiment with—the "sound-on-wire" in the magnetic wire recorder and reproducer. This device, the development of which has been spurred by the exigencies of war, has come to the fore as an important means of quickly and easily obtaining sound recordings from almost any location that 110 volt, A.C. power can be had. Even without this power source the recorder can be

operated in the field from a battery vibrator power supply.

The combination recorder and reproducer is a complete, self-contained unit, weighing only a little more than the average portable typewriter and but slightly larger in size. Microphone, microphone cable, amplifier, recording and reproducing mechanism, along with a built-in speaker and power cord are complete in one case.

Essentially the recorder performs the operation of magnetizing small sections of wire passing through its recording head. These sections are magnetized in proportion to the frequency and intensity of the sound wave which the microphone picks up. The wire used, only .004" in diameter and loaded to a 7% inch speed, is about two miles in length. It will record over a half hour of speech and music continuously when run at normal speed. However, when recorded at half speed over an hour of speech may be recovered with some reduction in quality. After recording and overwinding, the wire is run through the combination recorder-reproducer head and its magnetized sections furnish the magnetic energy, which in turn, operates the amplifier and speaker to render a reproduction of the sound originally recorded. This recording may be played back over and over again without any apparent loss of quality. When the recording is no longer desired it may be wiped off or "erased" while a new recording is made on the same section of wire simultaneously. Recordings may be made and played back indefinitely in the same wire.

(Continued on Page 312)



Description of numbered parts of S.E. Model B1 Magnefil Wire Recorder:

- 1 SUPPLY SPOOL Holds about two miles of #16, medium carbon steel wire, stress covered for rust protection.
- 2 TAKE UP SPOOL WITH STROBOSCOPE MOUNTED IN POSITION This spool is attached in conjunction with the supply spool. It rotates at 400 r.p.m. at rated line voltage of 115 volts at 60 cycles alternating current. The stroboscope disc shows a magnified for 500 r.p.m. equivalent due to electrical voltage operating conditions when picture was taken.
- 3 LEVEL WINDING LACING DEVICE for supply and take up spools. This device leads and winds across the spools according to the level winding mechanism of a Fisher's casting reel.
- 4 ANTI-CHATTER ROLLERS act to smooth and vibration of the wire before reaching the record and/or take head and after leaving it.
- 5 RECORD REPRODUCE HEAD This head performs the operation of magnetizing small sections of wire passing through its slit. On the top, in direct relation to the frequency and intensity of the signal the microphone picks up. On "take" back the head becomes a reproducer and re-creates the procedure leading the amplifier and speaker.
- 6 "TAPER" OR WIND OFF HEAD During its winding operations the head starts at rapid rate proportionally any signal on wire passing through it before it gets to the record head.
- 7 AUTOMATIC TIMING DEVICE will stop the re-order at any preselected point on the wire or will stop the supply spool before it runs out of wire. It reads time in seconds and minutes.
- 8 MICROPHONE INPUT for the high impedance Sanyo dynamic microphone furnished with the recorder as standard equipment.
- 9 FIRST STAGE INPUT This part may be used to feed the recorder from an outside source other than the microphone furnished. It is a high impedance input and may be used as a "bridge" head-through the use from a microphone transformer with a loading primary and 10,000 ohm secondary is recommended for this purpose.
- 10 OUTPUT JACK A 75 ohm speaker may be drawn externally from this jack, or through the use of a matching transformer any P.M. speaker of impedance may be fed from this point. When the jack is used the built-in speaker (11) is disconnected from the circuit.
- 11 ADDITIONAL SPOOL OF WIRE Additional spool of wire may be used interchangeably by dipping off the regular supply and take up spools and slipping on new supply and take up spools.
- 12 METAL SHIPPING CAN This metal can, bearing a label and a piece for shipping may be used for storage of recordings or for shipment of same from point to point.
- 13 IMPEDANCE MATCHING DEVICE (UNIVERSAL) This device designed and constructed for the phone enables the recorder to record from either a 500 ohm line or a 50/200 ohm microphone in addition to the variable high impedance microphone furnished with the recorder. Through the use of this device the recorder will also feed from its 75 ohm output into multiple line winding transformer in the P.M. speakers of 4, 8, 16, and 300 ohms may be fed (for voice amplifier switch) or additional for a 500 and 200 ohm line.
- 14 FRONT COVER OF WIRE RECORDER The front cover releases by a sliding toggle button on its lower right hand side and lifts off silently to a hinged cover on a portable.
- 15 TURNER MODEL 312 HIGH IMPEDANCE MICROPHONE furnished as standard equipment with the recorder. Appropriately the test of microphone cable is also included.
- 16 DISK STAND FOR MICROPHONE also included with recorder.
- 17 NEON GLOW LAMP used to indicate overloads of signal during recording by flashes.
- 18 BUILT IN SPEAKER 75 ohm, P.M. type, 75 ohm voice coil for matching on playback purposes.

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your patience
your understanding
your friendly helpfulness
in our difficulties of
the past four years —

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THROUGH the EDITOR'S FINDER

THANK God the war is ended! Let us all pray that we will never have another. Let us pray that we will never have to drop another atomic bomb; that the slaughter of women and children will vanish from the earth; that men will learn to be men and not savages, that greed and hatred will disappear from the hearts and minds of everyone, that out of all the suffering, slaughter and destruction will arise a new world in which all men will have an equal right to live a life of freedom and happiness.

But while we pray, we also wonder—wonder whether or not the leaders of the many countries that have been involved in massacre and bloodshed will have the welfare of just their own countries at heart, or the welfare of an entire world. Already there are believers that could easily lead to more war in many of the countries that have been peacefully exterminated by the struggle. In China there is a possibility of civil war. In Greece, Poland, Romania and many other poor polities and greed have risen their heads before the blood of millions has become dry on their streets. Even Winston Churchill has publicly criticized the United States of America for stopping lend-lease, has continued a country that has provided food and armaments for almost an entire world in the fight to wipe out those who wanted to destroy England as well as all other nations that believed in democracy.

Not until all men educate themselves to the point where the good of the entire world comes before their own desires will we cease warring. Please God may that time come soon, for if another world conflict comes our entire civilization stands to be wiped out.

WE have just received another letter from our good friend John Dosed, esteemed member of the American Society of Cinematographers, and War Correspondent in the European area for Paramount News ever since the start of hostilities. We wrote him some time ago asking him to tell us something about his experiences, but John is too modest to give us much. He says he is now in New York and adds:

"It is difficult for me to tell things about myself. If I told you the truth about those experiences they might sound like boasting. The fact remains, however, that since I became a newswar correspondent, beginning from Anzio beachhead and up to V-Day in Germany, I am known as a real 'front-work' man—working always with the most forward units with the deep in my heart—armed and respected G I's. If one does not stick with the forward fighting units he gets no pictures that show what war really is. I did my bit of that kind of stuff. Have covered the fighting in Italy before the fall of Rome, and then on up to Luebon with the Fifth U. S. Army. Then the re-

vision of South France, with the 7th Army. Then with the U. S. 6th Army Group through Rhone Valley, Vienne, Alsace and into Germany. Crossing of Meuse River and crossing of the Elbe at Witten (both rather hot jobs). Then the conquering of the Saar, piercing the strongest part of the Siegfried Line, and later with the 1st U. S. Armored Division, the capture of the Remagen bridge, sweeping into Germany up to Czechoslovakia. Am mighty glad the war is over."

That's it, as related by John. We bet he could tell some really thrilling stories of his adventures, if he would.

IT IS sad duty to inform our readers of the untimely death of Chief Photographer's Mate Jack Mackenzie Jr., who photographed a large part of "The Battle of Midway" safely, but who was killed recently in an automobile accident while returning from a very dangerous mission at the Marine Army Base. Also killed in the accident was Photographer's Mate 1st Class Ed Koch. Severely injured was Photographer's Mate Herbert Wolf. All three formerly worked in the Hollywood film industry and enlisted in the Navy and were assigned to photographic work.

Mackenzie enlisted in the summer of 1941. At the battle of Midway he stood on the roof of a power plant and alone photographed the battle while Japanese planes dropped bombs all around him. For some time he has been working with the National Defense Research Committee and is presently at California Institute of Technology on an important new rocket weapon.

K. C. Watson of the California Institute of Technology paid Jack and Ed a beautiful tribute in a letter sent to Commander Al Gibbs, under whom they worked. It read in part: "I hope you will inform the families not only that our sincere sympathy goes out to them, but that their loved ones did not live in vain. Their contribution to the winning of the war was so small one, and they will continue to live in the beautiful and valuable films which they took so skillfully and at danger. The lives of those of us who labored with them have been enriched by their work and the lives of many others have been saved by the accomplishments in which they had so important a part."

ONE of the most interesting activities of the American Society of Cinematographers is the monthly story dinner held in the organization's clubhouse. These dinners are interesting because following the dinner outstanding questions on technical problems, new photographic methods are revealed and discussed, and unusual films are screened. An advanced amateur would

find such a meeting to be something he had always dreamed of but had never experienced.

One of the most largely attended of these dinners was that of August 27th. More than one hundred of the top directors of cinematography at Hollywood were in hand. Following the dinner, Emory Muse of the Eastman Kodak Company, an authority on color, gave a talk on color from its inception to the present. It was one of the most interesting talks ever given at these meetings.

AMERICA'S writers of radio listeners should send a message of thanks to the famous Mayquest Club of Hollywood next month.

Ever since the beginning of commercial radio broadcasts weary and patient listeners have had to listen to whatever a sponsor has wanted to give them in the way of a radio program. This writer has often turned from one side of the dial to the other in an effort to find some program that would be interesting—then turned the radio off and has gone to bed cursing radio programs.

But the Mayquest Club, composed of three hundred of Hollywood's leading personalities, has conceived another type of radio program which should gladden the hearts of all radio listeners. The program will be built from the requests of radio listeners throughout the United States and Canada. It will be called "Request Performances," and is being sponsored by the Campbell Soup Company. It will be heard from coast-to-coast each Sunday evening, starting October 7th, at 6 p. m. to 6:30 p. m. Pacific Time.

All you have to do is write "Request Performance," CRS, Hollywood 28, California, telling what action picture, radio or stage star you want to hear in the program, and also telling what you want that star to do. President Charles Coburn of the Mayquest says, "We will do the best. We will fill every request humanly possible." Each program will be made up from the requests. So the listeners now can ask for what they want—and get it, according to Mr. Coburn, who is one of Hollywood's most brilliant actors and an Academy Award Winner.

This writer, for one, is happy about this idea and congratulates the Mayquest and Campbell Soup Company for giving the public a chance to build its own radio show.

ONCE again we are being asked to give—and give generously—to our Victory Chest which now more than ever needs the help of every person in America. The fighting has ended, but the effects of the war remain. To cause

(Continued on Page 309)

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SOUND AND THE AMATEUR

By DON W. LOOMER

Los Angeles Film Club

SOUND has had its place with motion pictures, almost from the advent of the motion picture itself. Since the days when the old so-called silent pictures came into being as an industry, sound in one form or another has been progressing along with the cinema art itself. We all can remember the first movies we saw, with some magnificence of the keyboard pointing out a piano obligato to a potent love scene dripping with "Hearts and Flowers" or a stirring chase of the villain through a rocky gully accompanied by a whirlwind rendition of parts from "The William Tell Overture." No, sound is not new, it has just grown up. It grew from a barrel-house piano, and its many variations through the four and five manuals of magnificent pipe organs into recorded sound. Vitaphone presented sound on discs, synchronized to a high degree, in which stage it remained until the sound was recorded on the film itself, at which point it now stands in a near-perfect form.

With this brief background, it is easy to understand why the advanced amateur and many beginners in the practice of making home movies have turned their eyes and ears to sound as an added feature to their hobby.

In the amateur field, the sound possibilities have progressed to the stage of sound on film also, but since very few amateurs may ever hope to be equipped to operate on this basis, we will confine our comments to sound as it may be applied through the use of recordings.

Anyone who possesses a phonograph stickmark, or one built into his radio at home, may enjoy the addition of sound to his pictures simply by selecting standard recording which fit the mood or tempo of the pictures to be projected. A careful selection of records played with your movies will add immeasurably to their appeal and effect. Since the equipment required for this simple handling of the sound problem is readily available already in many of your homes, why not take advantage of it?

Those amateurs who are fortunate enough to have a dual turntable unit on which to play their records may elaborate on the previously outlined arrangement by being able to provide an uninterrupted sound accompaniment as well as being able to insert portions of several records at the appropriate times, such as special sound effects that might be needed to enhance certain scenes.

For the more advanced worker, the addition of facilities for the editing of records will provide an almost unlimited scope to the sound field. For now he will be able to re-record the various parts of melodies he wishes to use, and by adding a microphone to his equipment he can add the spoken word in the form of nar-

rations. An ideal setup for this work is three turntables. Two of the tables to be used for playing the records to be re-recorded and the third table equipped with a recording head on which the records can be made. This will no doubt mean the rearrangement of the furniture in the house to make room for this stuff and the probable purchase of several items of wearing apparel for the lady of the house—but, after all.

The playback feature of two of the turntables should then be so arranged as to enable the operator to control them individually, and they should be fed into the editing head. This allows the operator to place on one record the multiple effects that can be achieved fading or dissolving the music from one table into that of the other. The microphone may be placed in the circuit to allow narrations being recorded supported by a background of appropriate music or sound effect.

If you are still with me, perhaps it would be of interest to briefly describe the process of making the sound for a picture including narrations.

Our first step is to carefully edit our pictures for interest and continuity, keeping in mind that we are now editing for sound as well as visual enjoyment. Therefore, it is well to have transitions from one type of scene to another not too abrupt as the musical transition is more easily handled when changes are slow and smooth. After the music, credit, and end titles have been added, we are ready to project the picture for the purpose of selecting the appropriate musical background.

Select various recordings that you feel will be expressive for the type of pictures you are showing for the first two or three minutes and play it as the picture is being projected. When you are satisfied with the music selected, make a note of the music and its spot in the picture and continue to the next two to three minutes of film. When all of the music has been selected, run through the entire picture, making notes on the cue points in the picture at which the music is to change.

Now you are ready to prepare the script for the narrations. These should be written so that the descriptive portion commences before the scene or action takes place and continues until the scene or action is under way on the screen. When the script is completed (if it isn't daylight, you are lucky), make enough test runs so that the narrator, the recorder and the person operating the music changes are all familiar with their respective parts and their cues. When this is accomplished you will all probably be ready to quit from sheer exhaustion, but perseverance—the results should be gratifying.

Make your recordings singly. By that we mean do not attempt to record the entire picture one-stop. If you have scored the music as outlined, you will find your ears to be about three minutes apart which will record very well on ten-inch recording blanks. When all of the recordings have been cut, wipe the now profuse perspiration from your respective brows and run the entire show through with your new records and enjoy it thoroughly at this time, as you will find that at each subsequent running you will be making mental notes on the many things you wished you had done instead of what you did.

Then have a cup of coffee, and as the early light of dawn breaks in the East, start thinking up the ideas you are going to use to make your wife believe you are not completely and hopelessly off your nut.

I am glad to submit a list of interpretation music for use as a guide in selecting music for your pictures. These numbers are, for the most part, available at all times. I hope that you will find these so and that your pictures in "sound with your pictures" will be as great as others who have tried it before you.

Animated Cartoons—Pictures for Children

Nutmacker Suite . . . dance tempo—
Paddy Martin (Album)
Overture Minutemen . . . etc
Sleeping Beauty Waltz—Tchaikowsky

New Records—Specta

Circus Music—Morris Evans' Band
(Album)
Fascinating American Marches—Goldman
Band (Album)—On the Mail, Semper
Parado, Anchors Aweigh, Lights Out,
Our Dumbest March

Beach Scenes

South Sea Serenades—Ray Andrade's
Orchestra (Album)

Grand Canyon Series

Grand Canyon Suite—Grove (Album)—
Sunrise, On the Trail, Sunset, Painted
Desert, Cloudburst

Shows or Ice Follies Scenes

A Pretty Girl Is Like a Melody—Berlin
Sliters Waltz
Anniversary Waltz
Our Waltz

General Scene Songs

Serenade—Schubert
Moment Musical—Schubert
Ballet Music . . . from Rossini—
Schubert
Ballet Music . . . from Faust—Gounod
Meditation—Mozart (See Largo)
Morning . . . from Peer Gyst Suite—
Grieg (See Peer Gyst)
Cinderella—Eric Coates
Dance of the Hours—Ponchelli
Waltz of the Flowers . . . from Nut-
cracker Suite—Tchaikowsky

Sunrise Scenes

Morning . . . from Peer Gyst Suite—
Grieg
Sunrise . . . from Grand Canyon Suite—
Grove
Overture to Oberon—Wagner

(Continued on Page 132)

Plenty of "points" for discharge

-but these "fighting CINE-KODAKS"
are rated "indispensable" in the Pacific



MAGAZINE CINE-KODAK
CINE-KODAK SPECIAL

ON the "point system," Cine-Kodaks Special and Magazine Cine-Kodaks could have won their honorable discharge long ago—they have taken part in every major campaign since Pearl Harbor—they have served with distinction in the Armed Forces' training programs here at home—they have made photographic history in reconnaissance and combat with the Army and Navy and Air Forces overseas.

Because pictures, particularly motion pictures, have been so important to our Army and Navy, most Cine-Kodaks Special and Magazine Cine-Kodaks are still on active duty in the Pacific war theater. The few remaining here at home, right now, must go to

high priority industries and educational institutions.

As for Cine-Kodak Film—again the Army and Navy have first call. Soon—maybe—you'll be able to secure a more generous supply. And in the not-too-distant future, let us hope, you can have all you want. Keep in touch with your Cine-Kodak dealer.

EASTMAN KODAK COMPANY
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Most Cine-Kodak Film is
on "active duty," too.



Shooting Production Under Fire

(Continued from Page 281)

minated from one side by a window, we would duplicate the effect with our lights, letting the other side of his face go black with just enough fill to bring out detail.

Similarly, we used top-lighting and back-lighting only to separate our characters from the background and give them depth. Certain sequences called for unusual lighting, such as one set-up in the operating room of a field hospital, which demanded an effect as if all the light in the scene were coming from a single shaded bulb over the operating table.

Another sequence utilized candlelight as an integral part of its subject matter and we had to produce high, flickering shadows on the walls while maintaining an effect as if all our light were coming from that single candle source. Those effects were difficult to achieve with our "dash-pans" floods, but by careful placement of lights, manipulation of the background masks, and the use of our two homemade spots, we were able to produce these moods quite realistically.

The key of the lighting was always slanted to the subject matter. Certain sequences definitely demanded low-key, while others were only effective when brightly lit. In every case, however, the lighting was keyed solely to the dramatic demands of the sequence, and not to what the cinematographer thought might look nice on the screen.

Our shooting at Thimbleville proceeded without incident except for the fact that now and then the shelling became so intense that cast, crew, and equipment were forced to retreat to the nearest shelter until it had subsided.

We were able to get the "front-line" feeling into this sequence by shooting uncontrolled footage of our mortar and artillery positions shelling the Germans in the other half of town. Then we set up our camera on the top floor of an abandoned observation post, perched in our 13-inch lens, and filmed some screen-filling close-ups of our shells blasting enemy targets on the other side of the river. The enemy must have spotted reflections of the can on our lenses, because the observation post suddenly became a hotly pondered target. We got out of there just in time to see a shell knock the top floor of the building off.

Meanwhile Sgt. Coogan left the unit to become 1st Sergeant of the company. He was replaced as operating cameraman by T/S Donald L. Poirier, a genial Texan, who is a fine camera craftsman.

We received word from Army intelligence that the city of Metz was about to fall, and we made plans to go in with the first waves of infantry. It was essential to our story that we record the atmosphere of the city as it was sparsely

deserted after falling, as the character of a town tends to change rapidly once the fighting has ceased.

We stripped our equipment and personal belongings down to bare essentials. We mounted a tripod in the back of our three-quarter-ton truck so that we could whip the truck into position and be ready to shoot a scene on slightest notice. I took a small hand-held Eyemo and sat ready in the jeep to film "grab" shots as we entered the town. We had studied every inch of the map of Metz. We knew exactly where to go to locate our photographic objectives.

Our entrance into Metz was a dramatic sort of thing. We looked like something out of "Grapes of Wrath" with camouflages hanging all over the jeep. But we were in on a big show—so big, in fact, that we wondered how we were going to get it all on the screen. There were dying horses thrashing about in the streets, wounded soldiers screaming first and from combat injuries. Whole buildings exploded into powder. No civilians were to be seen—only units straggling forward laden with infantrymen. Snipers took pot-shots at us from buildings.

It was a field day of action. We ground away at the scenes, capturing on film the atmosphere of a dying city. We knew that there was only one way to cover a situation as huge in scope and that was to narrow down our shooting to specific items which would convey the impression we were after. We filmed some establishing shots, then moved in for huge selective close-ups: the face of a dead storm-trooper, tank-treads crushing a German steel helmet, a shell-hole in the center of a huge Nazi flag draped down the side of a building.

Other combat units were getting general newscast coverage of the situation, so we filmed only what our script told us we needed for the story of Civil Affairs.

The soldiers and the tanks swept beyond the city to continue the battle. Three strong forts still held out, and their shells screamed overhead. But the city itself was dead, not a soul on the street, nothing that yet lived.

We filmed this silent wreckage in all its jagged reality. Then we moved our truck into the town square and took up a vantage point. Knowing that the sight of a camera always prompts subjects to look directly into the lens we lowered the tarp on the back of the truck so that only the lens peered out of the small flap opening. We mounted an array of long focal length lenses on the camera barrel. Then we waited for the next phase of our script to develop.

We didn't have to wait long. Army Psychological Warfare personnel set up speakers in the square and began broadcasting the fact that the city was now liberated, and offered assistance to the civilians. From the cellars and other dark hiding places the dead civilians slowly emerged and stood listening. Our cameras began to grind.

We spotted various human interest types in our finder, flipped lenses for a change of image size, and got the shots our script told us we needed. Shooting through the small tarp-flap with the 13-inch telephoto lens we were able to get screen-filling close-ups of people thirty feet from our camera without those people realizing that they were being photographed.

We used this "conceal" technique in later sequences whenever we wanted natural, unstaged, poignant shots of the populace. We would set up our lights for an interior sequence, then park the camera behind a door with just the lens peering out. Then when a dramatic bit of action developed we would start the camera grinding, flip lenses and have the sequence "in the can."

Although we needed any faced camera techniques, there were sequences in the film that very definitely called for dolly shots. Since the Army didn't provide us with any beams, we managed to build a very acceptable dolly from a low steel cart of the type used to haul heavy boxes. It had rubber wheels and we built a wooden camera platform on top big enough for the camera, cameraman, and an assistant to follow-focus. This dolly was portable and efficient for interior work. For exterior we placed the camera in the back of the jeep, let some of the air out of the tires for smoothness, and we had a very passable camera beam.

We shot footage on the activities of Civil Affairs for thirty days straight, during twenty-one of which the city was subjected to heavy shelling from the forts that still stubbornly held out. That, plus the ever-present snipers made things hectic at times.

We filmed every phase of the reconstruction work: the refurbishing of public utilities, emergency water-purification and distribution services, the distribution of captured enemy food to the hungry civilians, the registration of townspeople and regulation of civilian travel, the huge job of caring for thousands of abandoned slave laborers of every nationality.

From time to time our script demanded that we shoot atmospheric street scenes for inter-cutting to show the gradually mounting tempo of life in the city as it gradually came back to life again.

Naturally a great deal of our action had to be controlled, but it was presented strictly according to the actual situation, and was directed with emphasis on the human interest phases of the story. We wanted our audience to know these people as they really were, to understand their problems, and to see what Civil Affairs was doing to help their plight.

Most of the cast were civilians, and my biggest difficulty in directing them had to do with language differences.

(Continued on Page 315)

"PROFESSIONAL JUNIOR" TRIPOD

with Removable Head

Acclaimed the finest for every picture taking use.

The friction type head which is unconditionally guaranteed for 5 years, gives super-smooth 360° pan and 80° tilt action. It is removable, can be easily mounted on our "Hi-Hat" low-base adaptor or Baby "Professional Junior" Tripod base. The large pin and tunnel assures long, dependable service. A "T" level is attached. The top-plate can be set for 16mm, E. K. Cine Special, with or without motor; 35mm. DeVry and B & H Eyemo (with motor), and with or without alignment gauge.

The standard size tripod base is sturdy. "Spread-leg" design affords utmost rigidity and quick, positive height adjustments. Complete tripod weighs 14 lbs. Low height, at normal leg spread, 42". Extended height 72". All workmanship and materials are the finest.

ADAPTABILITY: below are illustrated (1) the "Hi-Hat" ready for the friction type "Professional Junior" tripod head (2) to be affixed. Under the "Hi-Hat" is the finger-grip head fastening nut that firmly holds the removable tripod head onto either the "Hi-Hat," standard tripod (3) or "Professional Junior" Baby Tripod (4). Note the push-in locking, fluted, height-adjustment knobs and tie-down rings on the standard (3) tripod base. The Baby Tripod has a "T" level, weighs 5½ lbs., is made of Aluminum, with Dural legs having spurs. Extended height—21 inches, depressed—16 inches. It's compact and sturdy. Quality throughout.

Patent No. 2,116,910



Professional Junior® Tripods, Baby Tripods, Developing Kits, "Hi-Hats," and Still-to-Motion Alignment Gauges made by Camera Equipment Co. are used by the U. S. Navy, Army, Air Force, Signal Corps, Office of Strategic Services, and other Government Agencies—also by many leading News reel companies and 16mm. and 35mm. motion picture producers.

FRANK C. ZUCKER

CAMERA EQUIPMENT CO.
1600 BROADWAY NEW YORK CITY

The new Professional Junior Baby Tripod, shown ready for the Removable Head.

AMONG THE MOVIE CLUBS

NOW that the war is over we undoubtedly can expect to see manufacturers of photographic equipment start an all-out effort to get new and better product on the market for civilian use. Competition will be keener than ever before. Equipment will be better—and in many instances perhaps lower in cost. But—it will probably be quite some time before the new equipment reaches the civilian market in sufficient quantity to supply the hundreds of thousands of men who have been struggling along for three years with equipment that has been repaired and repaired to the point where no more repairing is possible.

Greatest advances probably will be in the field of color with color in time practically taking the place of black-and-white in the field of entertainment films—as well as in the educational, industrial and documentary fields. Eastman's Monopack and the monopacks of DuPont and Ansco will probably play a big part in the advance of color, along with Technicolor which has been unable to supply the demand to date.

There will probably be some interesting developments in 16mm cameras and sound for 16mm for both professional and amateur use. And in the projector field, too, there will probably be new and improved products on the market within the next year. It is logical to guess that all manufacturers will pass on to the civilian trade those improvements which have grown out of lessons learned in the war where equipment really had to take a beating, and still bring back the pictures.

Detroit Photographer Elected PSA President

Charles R. Phelps, Jr., F.P.S.A., of 1034 Bishop Road, Grosse Pointe 30, Mich., has been elected President of the Photographic Society of America to succeed John S. Rowan, F.P.S.A., of 548 Morris Bldg., Baltimore, Md., whose one and term expires this year. Other new PSA officers are:

First Vice-President, Stuart M. Charnin, A.P.S.A., of 1 Horstess Place, St. Louis, Mo.; Second Vice-President, John G. Mulder, of Building 30, Koskik Park, Rochester, N. Y.; Third Vice-President, Victor H. Scales, 50 East 10th St., New York; Secretary, Mrs. Anne Pipher Dewey, A.P.S.A., of 4038 Malden St., Chicago, Ill.; and Treasurer, Charles Helms, of 1115 North 45th St., Philadelphia.

Southern Club

Highlights of the recent meeting of the Southern Cinema Club was the appearance of its former president, Dan Huxel, home on furlough from service as combat cinematographer in Europe.

Huxel described in detail the work and experiences of the combat cameramen in action to an audience that was held spellbound by his talk.

Westwood Movie Club

The Westwood Movie Club of San Francisco will hold its annual Amateur Movie Makers Exposition on the evening of September 28th, in the St. Francis Community Hall, Ocean Avenue and San Francisco Way.

In previous years this affair has been very successful in bringing together movie clubs, amateurs, home-made gadgetry, available equipment, good 8mm and 16mm films and a large attendance. This year, through the efforts of vice-president Fred Harvey, a showman of many years standing, it has been enlarged upon to include amateur professional Hollywood effects, stage settings and acts. There will be no games, raffles or admission charge. All persons who are interested are welcome to attend, according to announcement by publicity director Edward Franke.

President George Loebman will start the program with a three-minute address. The following will each speak for only one minute: Erik Uneski, Dr. E. C. Gohar, Jesse Richardson, Edward Francis, Don Campbell and Edna Speer.

Clubs participating in the display, demonstration and operation of photographic equipment, home-made gadgets and inventions will be the Sherman Clay Movie Club, Cinema Club of San Francisco, San Rafael Movie Club, Vallejo Movie Club and the San Jose Movie Club.

Ten 8mm shows will be operating simultaneously while the demonstrations are going on. Later the following 16mm films will be screened:

"Land of Eternal Spring," by Earl Boyd
"Service With the Colors," by Fred Harvey
"Ten Pretty Girls," by unknown photographer
"Eliapitan," by Walter Johnson
"The Humming Bird," by Walter Johnson

Despite the large amount of work necessary to plan the exposition in September, the club held a picnic and a regular meeting in August. That's enthusiasm.

L. A. Cinema Club

Glen R. Kershner, A.S.C., adventurer, cinematographer and writer, is billed as top feature on the coming September meeting of the Los Angeles Cinema Club. Kershner will give an instructive talk and screen one of his films.

Also on the program will be a Walt Disney film, "The Amazon Awakens." Judge William J. Palmer will present an unusual group of Kodachrome slides under the title, "Photography When You Can't Get Far From Home."

Utah Club

The July picnic meeting of the Utah Cine Arts Club at Mill Creek Canyon was such a success that the club did a repeat of the same spot for the August meeting.

Four films were screened at the August meeting. They were:

"Ganges Trails," 8mm Kodachrome, by Rudolph C. E. Schank.
"Shots of Monument Valley and Mesa Verde," 16mm Kodachrome, by T. K. Pope.

"The Over," 8mm Kodachrome, by Al Horton.

"Rocky Mountain Sundown," 8mm Kodachrome, by Al Henderson.

Recently announced new members of the club are Carl Abornathy, May S. E. Bolton, Virginia Burraston, Leah W. Clawson, C. H. Cooper, W. H. Evans, Dr. R. G. Frazer, C. A. Hemmer, Gladys Hansen, Ronald Hennen, Fred Jones, A. E. Kennedy, L. C. Layton, S. C. Lerner, R. H. Maikhat, Naita E. Meeklin, Helan B. Olson, K. C. Overton, H. L. Pope, G. R. Sailer, Capt. T. A. Schenk, E. M. Settle, Edwin Sorenson, O. L. Tapp and Alton T. Witt. Club boasts its largest membership since inception.

La Casa Club

As usual, the August meeting of the La Casa Movie Club of Alhambra, California, was a success both in attendance and quality of the films screened. On the program were two 8mm, two 16mm and three 35mm pictures. They were:

"Twenty on Golf," 8mm, by William A. Ware
"Clouds Over Snow," 35mm, by Dr. G. B. Baird
"Colorado to Arizona," 8mm, by H. A. McIlwray
"California Scenes," 16mm, by Dr. Harold R. Lurie
"Reaching On The Green," 16mm, by Charles Mazzaron
"Mexico Today," 35mm, by Guy Nelli
"Pendulous Roundup," 16mm, by Mrs. P. M. Streeters.

San Francisco Club

A very unusual and interesting program was presented the members of the Cinema Club of San Francisco at its August meeting. It was an Army Pictorial Service Program, arranged by Lt. Col. M. T. Lewis.

The armed services have used visual methods for training, orientation, information, education and entertainment to great advantage. Some of the army equipment was on display, and Col. Lewis outlined its use.

3 Major Tom Lewis, one of the six Signal Corps photographers who photographed the "Battle of San Pietro," discussed combat photography.

3 A popular Army orientation film, "The Battle of Russia," was screened.

VICTOR'S Safer Projection gives Complete film protection

Films are valuable, whether owned or rented. Victor's many exclusive safety features give maximum protection.



SAFETY FILM STRIP — Guards against breakage — sprocket hole damage — automatically stops projection if any film loop is lost.



SCRATCH PROOF GLASS — Guards against film scratch, because picture and sound areas are not touch laboratory parts.



DUAL FILM FRAME — Exclusive Victor system guards against puncturing holes in film, due to soft cushioned action of gears.



SWING-OUT LENS MOUNT — Guards against film damage. Instantly removable for cleaning. Opens to 180°.



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Sound Fidelity — The ultimate in true sound reproduction.

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And rented or borrowed film are *always* returned intact . . . in good shape. Never any embarrassment here either. VICTOR'S features, many of them exclusive, assure a good show and full protection for valuable, costly films.

That's why VICTOR is the favorite of schools, industries, churches and homes . . . everywhere.

IN THE HOME — ENTERTAINMENT FROM FILMS. Thousands of sound films are available here and at reasonable rental rates for home use. Comedies, features, musicals, educational, travel, etc., are included. At the right is a "short" from a Mackay McGuire comedy.



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MAKERS OF 16MM EQUIPMENT SINCE 1923



All photos on this page are actual frame enlargements from 16mm positive film developed by the reversal method. Positive film has furnished a reasonable solution of the film situation for Mr. Oswald during the war, and he recommends its use by others until such time as film situation gets back to normal.

MAKING THE MOST OF THE FILM SITUATION

By JAMES R. OSWALD

CRITICAL film shooters have played havoc with picture taking glass this summer, but the movie maker who can content himself with black and white filming for awhile, and whose camera isn't of the magazine loading type, will find solace in the fact that there is a reasonable substitute for the popular reversal film which have practically disappeared from the market, providing he is willing to forgo the advantages of daylight loading stock in favor of buying his film in bulk.

No, I'm not discouraging when I say that dealers' shelves are literally stocked to the hilt with this film, and further more I'm not having hallucinations when I tell you that you will experience the greatest economy in movie making you have ever encountered. 16mm filming at less than two cents a foot. This may all sound like a bit of soap box

oratory, but here are the facts.

Professionals and advanced amateurs are already familiar with positive film as its use in the motion picture laboratory . . . its title making aspects. But for those who are not so well acquainted with its characteristics let's elaborate a little on the subject.

The positive emulsion, as called because its primary use is for making positive projection prints from master negatives on a motion picture printer, is of extremely high contrast, which brings to light why it lends itself so well to title making. The film is usually developed in much the same way as a regular film negative, the black portions of the original, or of the title, becoming white, and vice versa. This further explains why amateurs have come to appreciate its value towards making their own titles — titles made with the ease

of black ink, result on the screen in clear white letters with a crisp black background.

Wanting to explore the possibilities of regular movie making with positive film, developed by the customary reversal method, I set out to conduct a few experiments along this line, to see what the results would be. Since that time, practically all my black and white filming has been done on positive film, which, indeed, was the solution to my film problem last year.

For those who wish to do a little experimenting of their own, I am happy to pass along this information which may prove helpful to interested readers.

Positive film comes speckled on a core, not on a reel, and must be handled in the darkroom, under a red safelight. It costs approximately one dollar per hundred feet in 16mm size, but this does not include developing. In the darkroom, the film is speckled on a discarded camera or projector reel, emulsion on dull side is Thence it is threaded in the camera in the conventional manner. Since there is no allowance made for leaders, the entire film is coated with picture taking emulsion, so no footage need be run off to get to the "starting point," as is usually done in the case of regular reversal film.

Upon completion of the reel, the film is unloaded, under the red safelight of the darkroom, where it is carefully soaked against the light, packed, and forwarded to one of a number of independent film processing laboratories, specifying development by the reversal method. Developing charges range from 35 cents to \$1.25 per hundred feet, 16mm.

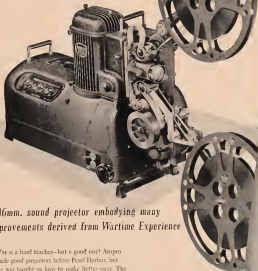
It is not the writers intention to "glorify" positive film as being equal to, or greater than, the familiar reversal types. As a substitute, however, the accompanying frame enlargements speak for themselves. When purchasing positive film, simply ask for 8 or 16mm positive, as the case may be, and open the way to continued movie making. As to exposure, it compares favorably well with orthochromatic type films, and is suitable for outdoor filming.



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Amprosound "Premier 10"



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War is a hard teacher—but a good one! Ampro made good projectors before Pearl Harbor, but the war taught us how to make better ones. The new Amprosound "Premier 10" is dramatic proof of this fact. For here is a machine with numerous important refinements and improvements that reaches new high levels of projection efficiency. It is now available in restricted quantities for civilian use. For the complete story of this new projector, write today for special folder on the Amprosound "Premier 10."

AMPRO

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Cine-Chronized Sound On Wire

(Continued from Page 200)

To the professional cinematographer or recorder this means that the enormous waste of sound recording stock lost in bad "takes" may be eliminated on the wire may be substituted in its place. If a bad "take" is made it may be magnetically erased or wiped off while a new or subsequent "take" is being made. Then when the final "take" is made, completed, and approved, it may be transferred to the film by the process of re-recording or dubbing. Also the possibility of being able to record a script or narration and then go back over it for correction of inflection, tempo, etc., offers untold economies of savings when the final expenditures of such operations are tallied at the end of each fiscal year.

To the amateur movie maker, a new, low cost method of adding sound to his home movies is within his budgetary grasp. The great expense of recording a sound track on a separate film, and then having it and the original silent film bearing the picture printed to a third film bearing both the picture and sound track, along with the expense of buying and maintaining a sound projector is completely eliminated. In addition the amateur will retain the original quality and beauty of an original Kodachrome projection, usually lost in duplicating procedures. It is with this phase—that of sound on wire for the amateur—that I wish to enlarge upon. The following discussion will take up both the pros and cons of utilizing sound on wire for home movies.

To start, let us turn back to the July 3rd meeting of the Syracuse Movie Makers Association. At this meeting a synchronized, 8mm motion picture, sound on wire demonstration was carried out.

Previous to the meeting, three members of the Syracuse club along with the author and the narrator, gathered one evening at the Radio Workshop of Syracuse University. There, in two hours time, two 8mm productions (one 16 minutes and the other 4 minutes in length) were post-recorded with synchronized narration and music on the Workshop's G. E. Model 51 Magnetic Wire Recorder. The first film, "North Lake, Gers of the Adirondacks," was recorded simultaneously on wire and by conventional methods onto a 16" 35/16 rpm disc. The second film, "A Day at the Zoo," was recorded on wire only. These two films were synchronized to the recorder by means of a strobescope disc mounted on the take-up spool of the wire recorder. The "spot light" from the projector's gate was directed by means of a mirror down to the strobescope disc revolving with the recorder takeup spool. When the projector was running in step with the recorder, the bars of the strobe disc appeared to stand still. The slightest



deviation in speed on the part of the projector or recorder could readily be detected and exact synchronization could be easily re-established by slowing or speeding the projector a trifle. Mr. David Reed, the narrator read a prepared script against a film which, up to that evening, he had never had the opportunity to review. In fact some of the scenes were yet to be edited into the film so only blank film sections represented the length or duration of these scenes. Had he made any mistakes, it would have been a simple matter to erase the entire, or any part of the take and do it over again.

Then on July 3rd, the wire recorder was brought down to the classrooms of the Syracuse Movie Makers and before an audience of members and guests assembled, the demonstration was run off.

The setup for the demonstration was extremely easy. The only equipment needed other than the recorder—projector and film, was a mirror and strobescope disc. The correct spool of wire had previously been threaded into the machine so that no time would be lost in getting underway. In as much as the General Electric model 51 recorder employs both separate input and output jacks, we were able to plug the line from the stage and screen speakers directly into the 3% ohm output jack of this recorder. The recorder's amplifier had more than sufficient power to drive the two screen speakers at a comfortable listening level. Approximately ten minutes was consumed in setting up the projector, the recorder, and aligning the mirror onto the strobe disc, mounted for playback purposes on the take-up spool of the recorder. With the show on the screen, only a very slight difference could be detected in the sound from the wire recorder and the sound from a standard 16mm sound film projector. The difference consisted of the slight wire ring in the background, heard only in quiet spots. The narration and music unfolded smoothly in perfect synchronization with the picture—and furthermore, synchronized by a person who had never attempted to do such before.

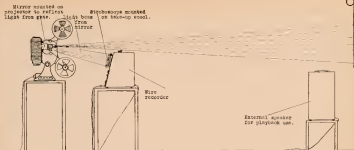
After the first picture, the film was rewound and was again screened, but this time the sound came from the disc

recording. Here a decided difference was noted. The wire recorder will record frequencies up to 5,000 cycles per second, apparently the same limit as average direct 16mm sound film recording and reproduction.* However, the disc will record frequencies up to 10,000 cycles per second, twice the range of the wire recording and average direct 16mm sound as film recording. The difference noted was an increased brilliance, reproduction of the overtones, and a much more faithful rendition of the music and speech on both the bass and high frequencies. The equipment used and the method employed in the playback of the disc has been previously described in the September issue (1942) of the American Cinematographer (pg. 482). Nevertheless, despite the limitation of audio response on the part of the wire recorder at the present time, it is acceptable and its rapid response is about the equivalent of the sound reproduction heard from the average desk radio.

So far all that has been stated has amounted to a picture of the wire recorder beaming the sure answer to the movie maker's quest for inexpensive, practical, and good quality sound for his movies. It offers just that! However, it is not the panacea of all the ills of previous methods used for recording sound for amateur movies. To be fair and perfectly honest with ourselves, let's look at the record to date.

Thus far there are several companies experimenting with the development of sound on wire. These range from such large corporations as General Electric and Radio Corporation of America to the Jukebox manufacturers such as Seeburg. As to the individual relative merits and degree of development of their individual products, that author is not qualified to give an opinion. However, having worked with the G. E. model 51 wire recorder belonging to Syracuse University for some time, and having checked our findings with two local radio stations which also own the same type and model wire recorder, the following information can be given.

Although the G. E. model 51 is essentially "wow free," in its total reproduction, the speed or number of revolutions per minute of the take-up spool will vary with changes in line voltage. Also there exists a variation in speeds between different machines, depending upon the "braking tension" applied to the supply spool while recording or reproducing is in operation. The rated speed of these machines is 493 rpm at the rated line voltage of 115 volts, A.C. However, we have found a variation in local machines on both recording and playback from 493 rpm to 438 rpm. In radio work this amounts to a difference in playback time of from one to two minutes in a given thirty minute period. This means in motion picture sound that the speed may vary from true to true due to voltage fluctuations and from recorder



EQUIPMENT SET-UP FOR RECORDING AND REPRODUCING OF MICROSCOPICALLY STRUCTURED SOUND-ON-FILM WITH AURAL NOTCH PICTURES.

to recorder due to differences in "break-tension." It may or may not prove serious depending upon the individual voltage regulation of the various locations where this equipment is used. Of course the changes in speed means a corresponding lowering or raising of the pitch of all recorded or reproduced sound. Maybe this is not important where speech alone is considered, but it is definitely objectionable where music or a musical background is employed along with the speech, especially so if the fluctuation occurs during and in the middle of a musical recording.

Second, there is a degree of "wire sing" to be heard from all recorders and spools of wire. This degree of "sing" will vary with the different speeds apparently due to slight differences in the diameters of the wire passing through the record-reproduce slot. With some speeds the "sing" will only be heard in the background on low level passages or between words and sentences. On other speeds the "wire sing" may be heard all through the recording, except for the loudest passages which mask the "sing" out. So far as we know at present, and from what the manufacturer tells us the only remedy is to try another spool of wire. Three of our spools were accurately measured by a micrometer and were found to vary in diameter from .0037" to .0042". This difference existed even in some sections of the same spool. In some cases this noise may manifest itself in a rushing sound with consequent distortion or breaking up of the signal itself as the wire rubs against the bottom of the recording slot.

Sound recording and reproduction will also be influenced by the "lacing device"—(an adaptation of the level winding device used on fishermen's casting reels). This "lacing device" evenly

laces the wire onto the take-up and supply spools during the recording, rewinding, and reproducing operations. Whenever the "lacer" stops momentarily at either side of the spool a change of quality of the sound issuing from the speaker is heard. This resembles in some degree the sound of "phone distortion" heard in short wave reception of signals from some far distant transmitter. This distortion may be very small or very objectionable, depending on whether the "lacer" is in step with the wire feeding off of the spool, or not. If the wire is being pulled off the opposite side of the spool or if the "lacer" is traveling ahead or behind the wire feed, this distortion will be quite noticeable. This may be remedied by being sure that the "lacers" are operating in the same direction and are laced in the same relative position as the wire is as the latter is fed off the supply spool either during recording or reproducing operations. Incidentally, if the wire scraped the feed or "anti-shatter" pulleys just before and after the record-reproduce head a similar result will be heard. The remedy for this is to widen the "V" of the pulley on a lathe so that such scraping against its side does not develop. Also it may be necessary to shim the recording head slightly to accurately line up the feed pulley bottom and the record slot. This is supposed to be done by the factory, but use in the field may throw the pulleys slightly out of line and cause a source of distortion that is troublesome to track down.

Another factor which seriously affects the sound quality is the grounding or lack of grounding of the recorder when fed by associated equipment. Lack of good grounding will result in introduction of hum into the recording. Also if the microphone supplied with the

equipment is held closer to the recorder than three feet, or if either the microphone or the recorder is operated in a strong magnetic field, hum induction into the recording will occur. In the first instance the hum will be induced into the microphone by its proximity to the powerful magnetic field set up by the recorder itself, and in the second place the recorder or microphone will be affected adversely by the external magnetic field.

On the G. E. model 21 and earlier models of this make, there is no provision made for aural or visual monitoring of the signal that is being recorded other than a small neon "overload" indicator. This is a distinct disadvantage as to the quality of the sound can not be determined until playback—when it may be too late for a retake. Consequently, sound volume can only be determined by watching for the occasional flash of the neon glow lamp caused by excessive volume peaks and resulting in some distortion of the recorded sound.

Although we have not experienced any wire breakage so far in either recording or reproduction operations, the two local radio stations have had this form of trouble. Breakage of wire does not mean that the spool is ruined or that the wire has to be discarded. The broken ends are annealed by a hot soldering iron or the lighted end of a cigarette, tied together, in a square knot, pulled tight, annealed again and the ends clipped off with a pair of scissors. The wire will then feed through the mechanism with no apparent trouble. We have two breaks in one of our spools caused by improper winding.

(Continued on Page 329)

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Principle that Cannot
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PSA Inaugurate Permanent Collection of Photographs

Collection of contemporaneous photographs for the purpose of preserving examples of the best pictorial work of the times has been inaugurated by the Photographic Society of America. Two tables have been issued to members to submit prints before October 10 next for consideration during the initial selection.

Only superior photographic prints with outstanding sales records or other substantial reasons for believing they will be of interest to posterity will be included in the PSA Permanent Collec-

tion. Entry blanks may be obtained from PSA Headquarters, Franklin Institute, Philadelphia 3, Pa.

The Collection will be in charge of five trustees, who will also act as a jury of selection, and who will from time to time add or eliminate prints in order to maintain quality. Selections will be made at regular intervals.

The Trustees in charge of the Collection are: Charles B. Phelps, Jr., FPSA, Chairman, Detroit, Mich.; Frank R. Frazer, FPSA, Boston, Mass.; Sherry-vaunt Presbrey, FPSA, Chicago, Ill.; Lloyd E. Varden, FPSA, Birmingham, N. Y.; and Charles W. Wheeler, APSA, Rochester, N. Y.

Stabilized Low Voltage Rectifier Announced



High voltage low current rectifiers with electronic stabilization have been known for many years. Green Electric Company announces further advance in the rectifier field—stabilized equipment with low voltage high current output.

The unit illustrated is rated at 200 amperes, voltage range zero to 5 volts. Any voltage selected in range is maintained to within 50 millivolts over load variation from zero to 200 amperes, and with low voltage variation of plus or minus ten percent.

Voltage stabilization system includes motor-driven Powerstat and simple electronic pilot device. Principle is widely applicable to larger or smaller rectifier units. Descriptive data available from Green Electric Co., 130 Cedar Street, New York City.

New Coronet Slidefilm Series Announced

A new series of 35mm. slidefilms or filmstrips to be made from Picture Stories appearing in CORONET Magazine has been announced by the Society for Visual Education, Inc., of Chicago. The new series will include eight slidefilms to be released one each month from October, 1945, through May, 1946. Each slidefilm is accompanied by a reprint of the Picture Story is CORONET which serves as a teacher's manual. The slidefilms become the permanent property of those who receive them.

The October Picture Story is "THE LIBERATED" — a story of people who have been freed all over the world. It will be followed in November by "THE STORM" — a documentary story of storms. "THE GERMAN" is the subject for December. It will be an analytical story of the kind of people the Germans were before the war and what we may expect of them in post-war.

Shooting Production Under Fire

(Continued from Page 306)

Things went along fine as long as I was able to direct them in French. But the slave laborers were Russians, Poles, Yugoslavs, Czechs, and Greeks, who understood no French or English. The only alternative was sign language. I'm told I looked pretty funny giving them directions in pantomime, but strangely enough the sequence in which these people appeared turned out to be the most poignant and realistic in the picture.

Then was meanwhile having his own troubles with exposure. We had only a Weston 50 film available, and the weather was so overcast even at mid-day that we couldn't get an exposureable reading outdoors. So we found ourselves shooting exterior scenes with an army of floodlights for booster illumination.

We shot from just after sun-up to just before sundown every day, with our evenings given over to the writing of captions on the day's work and the planning of the next day's shooting schedule. Each night we would sit down together and decide just what we were going to shoot the next day—camera angles, lighting, action patterns, special effects—so that when we walked onto the set in the morning there were no arguments, confusion or waste of time. Each man knew exactly what he was going to do and we could go ahead and get what we wanted in the quickest possible time. Sometimes split-second timing was necessary in moving from one locale to another—but because of adequate pre-planning we never once missed our story.

When the shooting was finished I was ordered to London to work on the cutting, and spent several weeks at Army Pictorial Service making the rough cut, creating the opening montages from library stock, keying the narration, and selecting background sound and musical score.

This feature, released under the title "G-5 in Action," was the first of a whole series of production documentaries which our unit continued to film under fire as until V-E Day. They varied in subject matter from "Tanker Ingressants" to engine-sabotage. When the initial Rhine crossing was made at Remagen we filmed a documentary showing the attempts of Nazi underwater swimmers clad in rubber suits and towing large mines to blow up our bridges. For this film we had the camera in airplanes, on the targets of landing craft at night with the illumination coming from gun searchlights on shore, and in a good many other respectable places. We almost got blown up a few times—but that, too, was all in the day's work.

The important point was that we had proved our commanding officer's theory, that fully pre-planned documentary films could be shot effectively under fire using a number of home studio production techniques. We were satisfied.

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Ampro Announces New "Premier-10" 16mm Projector

The Ampro Corporation this month announces the new Ampersound "Premier-10" sound-on-film 16mm projector, with aluminum castings throughout, equipped for both silent and sound film speeds and reverse operation.

This model is light, compact and portable, with extremely simplified design. It embodies the results of more than a decade of pre-war experience in building precision 16mm projectors, plus the knowledge gained from the rigorous tests to which Ampro machines have been subjected on far-spaced lighting fronts. "Out of all this experience," says Advertising Manager W. F. Scramlin, "has come a compact, sturdy 16mm projector—capable of providing continuous efficient operation under the most adverse conditions."

Special Awards

Special awards of powdered pins to 249 employees of the Fairchild Camera & Instrument Corporation, New York, with more than five years of service, have been made by Sherman M. Fairchild, chairman of the board. Recipients included several persons who had been with the company since its establishment 25 years ago.

Blue Seal Cine Devices, Inc., Announced

J. Burgis Conner and Louis R. Morse have organized Blue Seal Cine Devices, Inc., to manufacture 16mm and 35mm sound recording, reproducing and projection equipment.

Conner is president of the new organization, and Morse, vice president and chief engineer. Conner was formerly president of the Cineflex Corporation, manufacturers of 35mm combat cameras for the Army Air Forces. Before the war he owned and operated Motion Picture Camera Supply and Blue Seal Sound Devices. He was one of the pioneers in sound recording equipment in the independent field. Blue Seal recording equipment is in operation throughout the world and also has been used by the Marine Corps. Office of Strategic Services, Army Air Forces and other government agencies. Conner is also a cinematographer and a member of The American Society of Cinematographers. Offices and factory of Blue Seal Cine Devices, Inc., are located at 137-74 Northern Blvd., Flushing, L.I., N.Y.

Cradle of Cinema

(Continued from Page 29)

On May 15, 1910, Edison announced that each and every film released by him will bear the regular upon the film the fact that that film has received sanction of the National Board of Censorship of Motion Pictures, then established by the Peoples Institute of 218 East 106th Street, New York City. Shortly, and, forsooth, did the Edison Company begin to advertise the name of the star as in "The Peace of Lucca," especially written by Edward W. Townsend for Mlle. Pina Moris. Among the pictures produced and announced are the follow-

"His Just Deserts"—Melodramatic, length 255 feet, slated as an open family story, date of release February 4, 1910.

"The Surprise Party"—Comedy, length 305 feet, 1910.

"The Luring Case"—a detective story, length 265 feet, 1910.

"An Equine Hero"—introducing Don Dale's The World's Greatest Living Educated Horse, length 725 feet.

"A Queen of the Barbesque"—a rural comedy, length 250 feet.

An announcement of the completion of Richard Harding Davis's "Manxom Polly."

In the June 15, 1910, issue I found this letter published:

New York, May 14th, 1910
The Edison Studio,
New York City, New York.

Gentlemen:

In my recent trip to Panama, I had occasion to stop in St. Louis and was attracted by the advertisement of a Moving Picture House, announcing the presentation of my story, "Paradise." I dropped in to see it and now take my first opportunity to express to you my sincere appreciation of the excellent manner in which you produced that I was much impressed with the painstaking and tireless methods which you employed at the New York Studio, when I witnessed the rehearsal of that picture, and it is gratifying to me such a result. You did full justice to the merits of the story and this promises well for the success of the further stories in the series of mine, the exclusive rights to which you have contracted for.

Faithfully yours,

REX BEACH

There were no player credits, as director or photographer credits, but now and then there was an author credited with the production of the film. In the early days, we find that the producer had nothing to sell the public but the name of a well known author. The public chose to know the names of the players as you will readily learn in this article. What really played a great part was the written review of the story, the title, releasing date and the footage. There were suggestions for music for piano to be played with each picture as per example as the film.

"A Case of Identity" suggests a very as follows:

At opening, Moderno "Amaranthus"—till man drops to floor.
Agitato—till tailor office.
Moderno—"Amaranthus" till detective next newspaper.

Agitato—till auto comes down street.
Gallep—"Que Viva" till deck of steamer.
Allegro—"Chant San Pardo" till station-room.

Slow Walk—"Roses Honeymoon"—till deckhand at work.
Barnacle temp—"Goodbye, My Love, Goodbye" till detective sees writing on dock beam.
Agitato—till two sweethearts meet on dock.

Slow Walk—"Roses Honeymoon" till detective enters stationroom.
Pizzicato—"Le Secret" (Intermezzo) till girl sees detective.

Agitato—till two men have struggle.
Dramatic—till detective makes exit with prisoner.

Slow Walk—"Roses Honeymoon"—till flash.

Can you imagine the sorrow of the heroine, the sincere, heavy dramatic content of the story? Well, it's difficult to believe that the producers went to all this trouble, a mere thirty-five years ago.

On February 1st, 1911, Edison announced some of his best known writers, listing them as, Ellis Perdue Baker, Richard Harding Davis, Roy Noyes, Edward W. Townsend, Samuel Clemens (Mark Twain), Rex Beach, Theo. W. Hanshaw, O'Heary, and John Lutherlong as distinguished authors who write Edison scenarios. February 18th, 1911, he announced Miss Mary Fuller as a new Edison stock player. April 1, 1911, the Edison Company began to take cognizance of the importance of listing its players by name, then came, "Manxom" drama, 1440 feet by Thomas W. Hanshaw, with its players Marc McDermott, Nancy Avril, Marion Nesbitt, Robert Coopers "Nell's Last Deal" 1080 feet, Mary Fuller, Frank McGlynn, Guy Casasco, Louis B. Peley "The Strike on the Moon", 895 feet, Charles Gable, Nancy Avril, Edwin A. Clark, Frank McGlynn, William West "Silver Threads Among the Gold", 890 feet, Marc McDermott, Minnie Nesbitt, William Beckel. At all times the Kinetograph kept selling the New Edison model B, projection Kinetoscope with entele revolving shutter, guaranteed absolutely for one year, the cost was \$225.00.

April 15th, 1911, "The Haunted Sentinel Tower," a legend of Morrow Castle, Cuba (made at Morrow Castle, in Cuba) listing the players as Herbert Frazar, James Gordon and Mabel Truesdell. As time rolled on, sets as well as acting changed for the better. Gladys Hilditch, made her first appearance in a 540 foot release of June 7th, 1911, under the title of "Father's Dress Suit." She had just completed a triumph in a great Broadway success, "The Blue Bird."

It was about 1915 when Edison designed the "Home Kinetoscope" a portable projector with a three section film,

which was run forwards then a shift of the lever moved the center of the film, while you walked backwards, then shift again and crank forward to run the whole film. Edison produced all types of films for these projectors which were manufactured in great quantities. If you think you have any original ideas on film production, just look at this lining, which anti-dated your idea by more than thirty years. Here are films released for the Home Kinetoscope under many classifications, these films were produced by Edison in 1914.

Sociological "The Awakening of John Reed"—1080 feet produced in cooperation with National Society for the Study and Prevention of Tuberculosis.

"Charles's Reform"—1080 feet produced in cooperation with the Russell Sage Foundation.

"Children Who Labor"—325 feet, produced in cooperation with the National Labor Committee.

Historical American History "Battle of Bunker Hill," 1080 feet "Capture of Fort Mifflin," 1080 feet "Clear of the American Revolution," 1080 feet "Declaration of Independence," 955 feet.

English History "Mary Stuart," 3845 feet "Battle of Trafalgar," 1080 feet "Tudor Princess," 3845 feet.

French History "Man of Destiny," 1080 feet "Prisoner of War," 325 feet, "Web of Fate," 325 feet.

Classical and Operatic "Aida," 1080 feet "Faust," 540 feet "Richard Stegoff," 540 feet "Peg Woffington," 325 feet "The Three Musketeers," 1085 feet.

Juvenile "Alice in Wonderland," 1080 feet "Little Red Riding Hood," 530 feet "Jack and the Beanstalk," 1080 feet "Pied Piper of Hamelin," 1085 feet.

Seasonable "Christmas Carol," 1045 feet "Night Before Christmas," 890 feet "Thanksgiving," "Decoration Day" "Fourth of July."

I can recollect about 1912 when I would take the elevated to the Edison Studio in the Bronx, in search of extra work. I remember too, playing kid parts with Yale Bess, then a featured child star. Because the down town studios were more accessible, I stopped visiting the Edison Studio until I was called there for work.

The present Filinvest Studio is "a busy a studio as any in this area. Musical shorts are produced here for Columbia Pictures release. Soundies are made, as well as commercial subjects and now and then a feature. Recently I had occasion to photograph a three reel film at the Filinvest Studio, produced by the Emerson York Studio, directed by Emerson York for the National Tuberculosis Association, featuring Gene Lockhart, with a fine cast of players from many of the best Broadway plays.

I sincerely hope that some day, this studio will become a National Museum, sponsored by the Motion Picture Indus-

(Continued on Page 322)

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Production of Scientific Films for Biological and Medical Purposes

[Continued from Page 295]

be silent and with a minimum of captions. Captions should only clarify procedure and should be so made that they must the final continuity of the film. Where possible it is desirable to make a silent and a sound version. Some take all their shots at normal speed so that a second take can be added if desired.

Considering, then, the writing of the script for a teaching scientific film, a note should be made of all that is to be demonstrated and the demonstrations should then be split up into a series of stages or sections, beginning with the simpler and building up to the more complex. The script at this stage should, in fact, be more or less in the form of a series of lecture notes. If the script is not coherent, the film has no chance; it is likely to exaggerate the effects of imperfect planning. It is important to visualize as much as possible its appearance on the screen.

Using these notes as a basis, each part should be rewritten from the beginning, in full detail, every step in procedure should be put down. Particular points which should be stressed, which are likely to be missed or which may be difficult to understand, should be underlined or noted. Notes should be made of the approximate time required for each step. This is important as procedure which may take place within the space of a few microseconds, or many months, have to be expanded or condensed so that they are demonstrated within the space of a few minutes, yet the audience must appreciate the relative time factors. These points which necessitate reference to the same subject of experiment should be carefully noted.

We now have all the information necessary for the writing of the shooting script with full camera instructions. With experience, it is possible to get a clear mental picture of the lens field, and to train oneself to think in terms of different focal lengths. When working with colleagues who have difficulty in appreciating the camera field, I use an optical viewfinder, such as that which can be detached from the Kodak Special, and ask them to view the field from different angles and at different focal lengths. This is very satisfactory. It has resulted in requests for a lens with similar characteristics to the optical view finder. Less computers ought note this and produce a much-needed "zoom" lens for 16mm work.

The writing of the shooting script with full instructions is probably the most difficult of all. Only those shots which are essential to the demonstration must be made, though, of course, it is better to take too much than too little, so that can be put right by the cutting, but waste must not be placed on cutting and editing to correct mistakes. Many factors must now be considered. Can the utilization of some film technique assist in clarifying difficult points in the demonstration? Or, again, is it desirable to use accelerated or slowed motion? If it is decided that the motion should be accelerated, remember that all movements in the field are involved. For example, a slow change may be taking place in a subject in which the respirations are also visible; if less than the standard number of frames per second is taken, say four, then when the film is projected at normal rates, the picture will show such rapid movements of the whole subject that it will be difficult, if not impossible, to see what is going on. This can be overcome by arresting respirations during the shooting, provided it is possible, and does not affect the result, as in the case of an X-ray kymograph—ie record of the slow contraction waves of the stomach. If respiration cannot be arrested the difficulty might be remedied by a series of diaphragms. If, however, you wish to impress the audience with the gradualness of the change (and at the same time show the extent of the change), then a normal shot followed by split screen photography will do this very well, the split screen showing the same part before and after the change. It can be further extended to show the effects of two different procedures on the same organ. This technique has been used by the author to demonstrate the effects of two different types of drug on the contractions and color of the spleen. It is also useful when comparison of blood pressure curves or other types of curves is desired.

There is no doubt that the time lapse work is of great value in kymography and in the botanical field, in fact, much new information has been obtained by this method, so ably demonstrated by Warren H. Lewis and P. W. Gregory in their films on the developing ovum.

[To Be Continued Next Month]

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Through Editor's Finder

(Continued from Page 312)

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of war through the efforts of its 110 united agencies.

Remember that President Truman said in a speech at August ranch—"Europe is hungry. As the winter comes on the distress will increase. Desperate men are likely to destroy the structure of their society to feed in the wreckage some substitute for hope. Unless we do what we can to help, we may lose next winter what we won at such terrible cost last spring." Our Victory Chest is going to try to take care of the distressed and the hungry.

The community services provided by the Victory Chest cannot be called charity. They are supported by everybody for everybody. They safeguard our community health, protect the community's children, help families and individuals who need help of any kind. Everybody benefits because everybody gives.

One of the great projects of United China Relief—an agency of your Victory Chest—is to provide seeds for the scorched earth of China. Whether it be relief for our Allies, comforts and consolation for our armies of occupation, or help for returning veterans and others who need assistance in our own community, the 149 agencies of your Victory Chest are at the job. So, why not give at least one day's pay to your Victory Chest?

New Filmsound Library Releases Announced by B & H

HI GOOD LOOKIN'

(Universal)

No. 2562—6 reels

New twist to the Pygmalion theme. Radio big shot goes out of his way to aid little girl from country, only to find himself first threatened with and then saved from eclipse by his cousin's generosity (Hermel Hilliard, Kirby Grant, and various top-notch radio bands and stars) Available from September 24, 1945, for approved non-theatrical audiences.

LADIES COURAGEOUS

(Universal)

No. 2564—9 reels

The saga of our women ferry pilots, a civilian outfit, later admitted to the Army Air Force. (Loretta Young, Geraldine Fitzgerald, Anne Gwynne, Dana Barrymore) Available from September 17, 1945, for approved non-theatrical audiences.

PEOPLE OF THE POND

No. 5848—10 reels

A study of the microscopic life inhabiting a pool in an extinct volcano. Remarkable photography of beating heart of Water Flea, seen through its almost transparent body. Transparent Ammolele. Rotifer Cyclops. Hydras. Varied reproductive methods. (Produced in Australia)

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MANUFACTURERS OF SOUND ON FILM
RECORDING EQUIPMENT SINCE 1891

Cine-Chronized Sound

(Continued from Page 13)

the consequent "backlash," and breakage during rewinding), and these, after syncing, have been run through repeatedly with no trouble. Frankly, we have never been able to detect where these "splices" are by listening nor have they so far come apart.

A word about the permanence of recordings. The manufacturer claims that the recordings are permanent, until

erased magnetically. We have had over sixty playbacks of one recording and so far can not detect any loss in volume or quality. The wire is made of medium carbon steel—and as such is subject to rust in a moist atmosphere, even though the wire is coated with a rust preventative grease. In three months of operation only one of our wires have so far shown any signs of rust or deterioration. However, the grease has caused some trouble by collecting in the recording slot. This results in the necessity of occasional cleaning of the slot to avoid fuzzy, weak recordings and reproductions. This can best be done by using a piece of bone or plastic ground down to .004" in thickness and utilizing it to scrape the dot out of the slot.

From the standpoint of acceptable quality, the wire must be run at the full speed of 400 revolutions per minute on the take-up spool. This limits the length of any one recording to a total of thirty-three minutes, where speed and time are concerned. At the 200 rpm speed of the take-up spool (this is accomplished by internally changing the belt driving the take-up spool), about an hour and six minutes of understandable speech may be recorded. However, at this speed there is a very serious loss of all frequencies above 2,000 cycles per second and a consequent muffling of some speech sounds. This speed is not recommended except where it is imperative that the longer operating time be used for a single spool.

Some or most of the preceding disadvantages may be remedied by the time the war is over or as further development progresses. Also it may be possible

to mechanically link the recorder to projectors to maintain mechanical synchronization by means of cables for recording and reproduction purposes. If a synchronous motor is used in both the recorder and the projector an electrical interlock system or Selwyn drive could be used to maintain synchronization, similar to our present day "double system" film recorders. However, until something better comes along, the system of stereoscopic synchronization of projector and recorder now utilized, will work very well and with a minimum of effort on the part of the projectionist.

All in all, and in spite of the existing disadvantages, the advantages of the wire recorder as developed today offers to the amateur movie maker an inexpensive, simple, and practical method of adding sound to his home movies, or they film, 16mm., or 35mm.

*It is reported that Western Electric does 16mm recording with new record on 1,600 cycle note on 16mm film.

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New Bolex L-8 Camera



The American Bolex Company has announced details of its new Bolex L-8 motion picture camera.

It is explained that this camera shows away from complicated mechanisms, but offers simplicity in operation with maximum photographic results. One feature stressed in this camera offers constant motor speed whether spring motor is fully wound or not. Camera operates at one speed only.

The new Bolex L-8 is equipped with the Kern-Phallard 1/4 inch f/2.8 lens in monometer focusing mount.

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Research Council Adopts Release Print Revision

The Research Council of the Academy of Motion Picture Arts and Sciences has announced the adoption of the 5th revision in the Standard Release Print Leader, which is placed on all projected to theaters.

This Release Print Leader was first established by the Academy in 1931, and has been in use as an industry standard since that time. It specifies the markings on the beginning and end of every reel of release print sent to the theater, to provide the projectionist with an easy means of properly threading up the projector and a visual signal on the screen for proper changeover from one reel to the next.

The principal revision just adopted specifies a change in the identification leader to include six frames on which is printed **LENGTHWISE WITH THE FILM** the reel number and the picture title. The inclusion of this information lengthwise with the film will be of material assistance to the projectionist in that he can now read the title and reel number each more easily when the reel is on the projection machine.

The Standard as revised is now under consideration by both the American Standards Association and the British Institute of Standards for possible eventual approval as an international standard.

This standardization was handled by the Research Council Basic Laboratory Committee, with J. M. Nickolas, head of Metro Goldwyn-Mayer Studio Laboratory, Chairman, and including George Crane, Michael Lesing, George Reid, Sidney Selow and Ray Williams.

India Likes Movies

The people of India are enthusiastic movie fans and when their purchasing power increases, as it surely will, they may provide one of the greatest film markets of the world, according to F. P. Young, manager of the India branch of Western Electric Company, Ltd. Mr. Young has just returned to this country on leave after five years in India.

"As present there are only 5,000 cinemas in India for a population of over 400 millions," says Mr. Young, "but all theaters are wired for sound and over half use American equipment. Native film may run for a surprisingly long time, sometimes a full year.

Although film is rationed (now 12,000 feet per feature), Mr. Young points out that the number of showings is not rationed. Consequently there is a great backlog of pictures with not enough theaters in which to show them.

Mr. Young gives credit to the Indian government for a compulsory educational film program. To improve the education of the masses, the government produces films on such subjects as methods of agriculture, industry, and hygiene, and requires every cinema to show one of the films on every program.



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Sound and the Amateur

(Continued from Page 184)

Examine Scenes

Lobestraum
In a Monastery Garden
Traumerei—Schumann
Evening Song—Schumann
The Part Breaks—Schumann

Mountain, Raymond

Kamond Outcrop : Cluster Spine—
Eukenstein
Painted Desert : from Grand Canyon
Sage—Grade

Oriental Sciences

In a Peasant Market
 Was Served—Some Wartal
 Coronation March . . . from The Prophet
 —Meynbeer
 Hungarian March—Bes Dos
 Hungarian Rhymed—Lent

Cradle of Cinema

(Continued from Page 316)

try. Here, should be housed personal effects, depicting fine ventures and apparatus which were used by the companies, represented by such men as Edison, Larnesse, William Fox, Louis J. Benck, William A. Brady, Lubin Keasey & Baerman and other persons who in a great measure were responsible for the rise of the film industry.

(NOTE: All rights reserved by the author including the right to reproduce this article or portions thereof in any form.)

Telefilm to Expand in 16mm Field

Plans for post-war expansion in the 16 millimeter film field have just been outlined by Joseph A. Thomas, president of the Toffeline Studios, in announcing the appointment of Half M. Spangler and Associates as public relations consultants and the Advertisers Production Agency, both of Los Angeles, to handle increased publicity and advertising programs on a national basis.

Thomas stated that the new Telefilm studio to be erected immediately on Hollywood Boulevard would be the most elaborately equipped 34-millimeter color film and sound plant in the world. Telefilm has produced films during the war for the government: Armed Forces, Lockheed, Douglas Aircraft, Standard Oil, Food Machinery Corporation, Buick, Fe Radio and other large corporations. Now that war time shortages and restrictions will be removed, the studio's attention to become the "little MGM" of 36-millimeter will be realized, President Thomas declared.

Classified Advertising

FOR SALE

WE BUY SELL AND REENT PROFESSIONAL
AND HOME EQUIPMENT, NEW AND USED
WE ARE DISTRIBUTORS FOR ALL LEAD
ING MANUFACTURERS RUSKY CAMERA
EXCHANGE 125 Seventh Ave. New York City
Established since 1942

[illegible]

CAMPBELL MARY

70 WEST 45TH STREET NEW YORK

[illegible]

FOR SALE: WESTERN ELECTRIC AMPLIES
Reph. Western Camera. 12-watt model, 1800 3000
0. 5-MHz magnifier shown. Also, 70mm. Zoom
F12 lens with matched Super lens. Grilles
head-rod. New variable intensity submicro-
ner, portable amplifier, electron S supply, Cathode
Gun and RCA microbeam. Also, and Source
Device. 1 Grade Source. New York City

MISCELLANEOUS

SOUND RECORDING ENGINEER WITH THEORETICAL experience in all phases of motion picture work desires position. Trailer complete change of name department. Box 305 American Cinema.

HISTORICAL CHIEF OF MOTION PICTURE
company would like to change for water opportu-
nities. Thorough knowledge of phases of picture
business. World War to develop into production
manager. American Cinematographer, Nov. 1932.

HOME MOVIE FANS, JOIN MOTION PICTURE
Educational Society. Free valuable information.
Box 372, Reading, Pa.

WANTED

WANTED TO BUY FIRE ARM

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MUTCHALL, M. & R. KITCHEN: DIVERSITY AND ST

ALSO LABORATORY AND CUTTING ROOM

RESULTS

CAMERA EQUIPMENT COMPANY

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CABLE COMPANY

WE PAY CASH FOR EVERYTHING PHOTO-GRAPHIC. Write us today Hollywood Camera Exchange 1918 Hollywood Blvd., Hollywood.

SECOND PROJECTOR CAMERAS TRIPODS
STEADY CAMMOTORY OR RECORDING
EQUIPMENT HIGHEST PRICES PAID
S O S CINEMA SUPPLY CORPORATION
NEW YORK 11

EASTMAN KODAK SOUND BLIMP RCA sound camera, 480 ft. magazine, No. 100 battery, Kodak 100 roll, synchronous motor for Cine Speed, 16mm measuring, Mag-Lite 16mm synchronous 14000, Shorokk video Bell & Howell Editor Cine Editor 16mm Sound projector, Remo-Kinex Shop 54 Monroe St., Pomona, New Jersey.

Buy Victory War Bonds

TENT SHOW

On the Pacific fronts
movies give the jungles
a touch of home



U. S. Army Signal Corps Photo

HEART-WARMING as the familiar pictures of small boys slipping into the circus, this shot from the South Pacific is pretty good evidence that Yanks run true to form.

Their urge to enjoy a glimpse of home life is overwhelming. So, at odd moments, often under the weirdest of conditions, fighting men see the latest Hollywood pictures . . . sooner, frequently, than they hit "Main Street".

Every night—all over the world—more than 5000 movies are jammed with an estimated 1,500,000 service men and women. The movies easily reach the places where entertainment matters most.

Eastman Kodak Company, Rochester 4, N. Y.

J. E. BRULATOUR, INC., Distributors
FORT LEE CHICAGO HOLLYWOOD

One of a series of
advertisements by
KODAK testifying to
the achievement of
the movies at war



